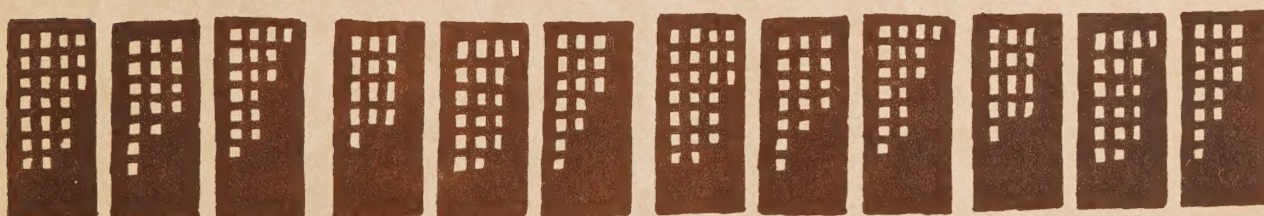


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IGSL

Growth Management Process



CITY OF FRESNO
CALIFORNIA

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Finance Department
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URBAN GROWTH MANAGEMENT PROCESS

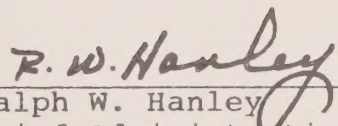
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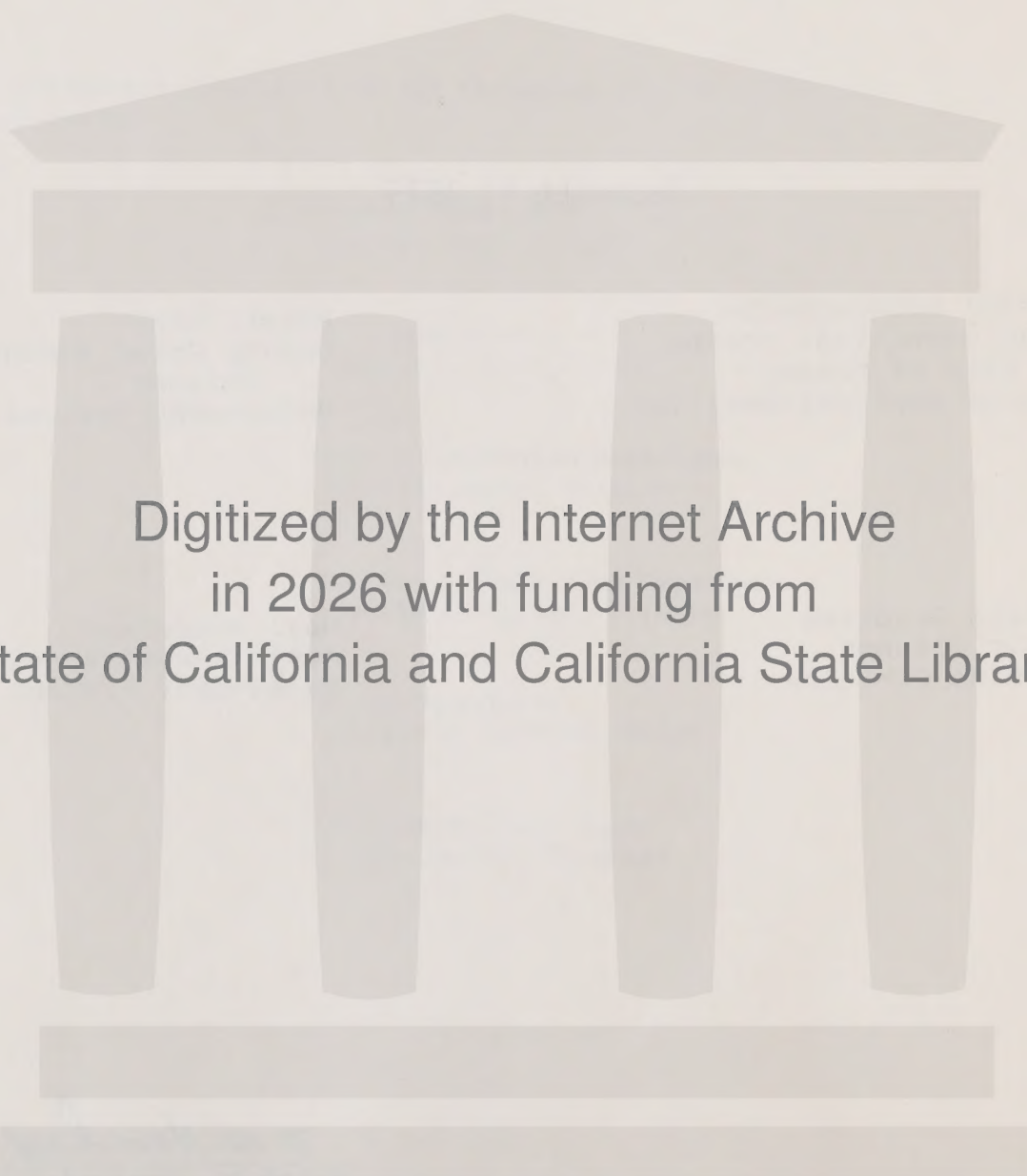
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Resolution No. 76-37,
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INTRODUCTION

The City of Fresno has developed an Urban Growth Management Process to manage the location and timing of growth in the City's fringe areas. The objective of the process is:

To encourage urban development to occur in such a way that the expansion of urban service delivery systems can be accomplished in a fiscally sound manner, while still providing required City services on an equitable basis to all community residents.

Key elements of the Urban Growth Management Process are: (1) a procedure for determining how City services will be delivered to new development, and (2) an analytical method of assessing the costs and revenues associated with new development.

This document describes these elements of the Urban Growth Management Process in detail. Section I outlines the functions of the Service Delivery Review Committee, and specifies the urban service delivery policies which are intended to guide the expansion of the municipal service delivery systems in the City's fringe areas. Section II describes the procedures, assumptions, and structure of the City's Cost/Revenue Analysis model. The model provides an analytical method of assessing costs and revenues associated with new development.

I SERVICE DELIVERY REVIEW

The evaluation of service delivery alternatives marks the beginning of the analytical process supporting the Urban Growth Management Process. Selection of the specific approach to service delivery must be made before a Cost/Revenue Analysis can be run on a development proposal. The steps necessary for service delivery analysis are:

1. Select the best method of service delivery. Alternatives might include City vs contract delivery, or temporary service delivery alternatives.
2. Define any required conditions on the service delivery system selected. This will include the approach to financing capital costs, and any applicable conditions for each type of development.
3. Provide information necessary to support a Cost/Revenue Analysis of the proposed development.

The purpose of this section is to describe the City's policies for providing urban services beyond current service networks, and the process used for selection of the service delivery method.

A set of basic criteria underlie the selection of service delivery policies described later in this section:

1. Extensions of City urban service networks to accommodate a development request will be allowed only if no unplanned outlay of funds is required from enterprise or general funds. Therefore, all capital costs for service network construction in advance of City expansion plans must be borne directly by the developer.
2. Alternatives to permanent extension of urban service networks will be considered where it is not feasible to extend existing service networks. These alternatives are only interim measures, however, and must carry with them the method for converting to normal City delivery networks when they become available.
3. Enterprise accounts will be expected to balance costs and revenues from covered services within each account. Only those services not covered by enterprise fees will be treated in the Cost/Revenue Analysis.
4. The City will maintain its policy of providing sufficient excess capacity in existing urban service networks to assure adequate area for growth. Any development requests beyond the area provided with existing service

capability must bear the total capital cost involved in the extension of the service networks.

SERVICE DELIVERY REVIEW COMMITTEE

Service Delivery systems selection will be made for all City services. The selection will be a formalized process. A Service Delivery Review Committee will be convened composed of the heads of the service delivery departments (Parks and Recreation, Public Works, Police, and Fire), the Director of Planning and Inspection, and the Director of the Management Systems Office. The chairman of the Committee will be a representative of the Urban Growth Management project within the City Manager's Office. The Committee will require from an applicant sufficient information on any proposed development to define service needs, and will then:

1. Select the approach to service delivery.
2. Estimate the capital costs required.
3. Prepare applicable input data for the Cost/Revenue Analysis Model.

The Service Delivery Review Committee after reviewing the information supplied by the applicant and any applicable City plans and policies shall develop a Service Delivery Plan for the proposed project. The Service Delivery Plan shall contain all conditions and requirements which must be satisfied before the City would agree to extend urban municipal services to the proposed project.

Because the delivery of fire, water, sewer, and street-related services can require significant capital investment, the terms for their extension must be fixed before a Cost/Revenue Analysis can be performed. City policies governing the extension of these services have therefore been more clearly defined and are discussed below. All other services will be provided in the normal way, using current practices, codes, and ordinance provisions, to any proposed project approved by Council following Urban Growth Management Process review.

The following pages describe the policies to be used in defining acceptable alternatives to the delivery of capital-intensive urban services beyond existing service networks.

SERVICE DELIVERY POLICIES

1.0 Fire Service Delivery Policy

The City of Fresno currently provides fire services to all areas within the boundaries of the City limits from eleven stations, with a twelfth station in the planning stage. The service areas of these stations are dependent on many factors. The service areas reflect the general, long-standing policy of the City that a high level of fire services will be maintained. The City of Fresno currently enjoys a Class 2 fire insurance rating, which results in lower fire insurance costs to many of the citizens of Fresno. It is the intention of the City to maintain this Class 2 rating.

One of the most important factors considered in the rating schedule is the maximum running distance that fire companies can travel within the service area. This limitation on the amount of area which can be served by a fire station creates a threshold problem in serving newly developing areas, in the sense that once a service area is developed to capacity, a development beyond these boundaries theoretically requires that a new station be built, equipped, and manned. If this approach were taken, it would require a major investment of general funds to service an area of largely undeveloped land. A stated policy is needed, therefore, to provide a reasonable zone for development to occur, beyond the recommended boundaries of current stations, without incurring the cost of constructing, equipping, and manning a "premature" new station.

The approach selected for the solution of this problem is to first define permanent fire station areas based upon a rigid interpretation of the Insurance Service Office (ISO) grading standards, and then to extend these boundaries temporarily to serve new development. At such time that land use in the extended area has developed to a point that it could support the operation, a new facility would be considered. At the same time, however, service at an acceptable level must be maintained for all property within the City limits.

The policies selected for fire service standards are as follows:

- 1.1 The City of Fresno will provide fire services at a level to maintain the overall Class 2 fire rating, based on ISO standards. The City Fire Chief will assess the feasibility of allowing service levels to fall below those defined for Class 2 in small parts of the City

without endangering overall City classification.

- 1.2 The City of Fresno will consider a level of service corresponding to Class 8 for any rural properties already in the City or committed to construction when annexation to the City occurs. This level of service corresponds to the service provided by the fire districts within which those developments should have been served if annexation had not occurred.
- 1.3 No developed property now in the City will carry any lower fire service level than Class 8. Any significant quantity of such properties, however, will adversely affect the overall Class 2 ratings for the City. Therefore, no further improvements will be allowed on undeveloped land which can only be protected to a Class 8 level of service.
- 1.4 Providing Class 8 service to rural portions of the City will require an additional capital outlay and continuing operation and maintenance cost beyond the current fire service complement. That cost will be borne by the City of Fresno, but will be allocated specifically as a unique cost to Fire Stations 11 and 12 equally, since those stations provide most of the Class 8 service needed in the City.
- 1.5 As an interim measure, service will be provided to expanding fringe areas of the City at a level compatible with Class 2, but with a temporarily expanded area of coverage from each perimeter fire station. The extended area is compatible with ISO requirements, but only as an interim measure until continued development warrants construction of a new station and resumption of the standard coverage area. This interim policy has three components:

(1) Extended interim service areas will be allowed for existing fire station locations. The extended zone around existing fire stations is not intended to be a well-defined area between unique boundary lines, but rather is a region of unknown size to be defined by the Fire Chief. As specific development and construction details warrant interim coverage, 4-5 mile running distance might be allowed; conversely an improperly protected development 2-1/2 miles from a station may be labeled as inadequate. In arriving at his decision, the Fire Chief must consider the impact of any new service on his ability to maintain a suitable level of service for the remaining City, which might include lesser levels than Class 2 on an interim basis and for good cause. Recommendation of the Fire Chief is submitted to Council as part of the

Service Delivery Review Committee report.

(2) The City will evaluate periodically the extent of development existing in the extended area. When the level of development indicates that a new station is needed, appropriate action will be taken. This decision may be based on such things as the density of development, the assessed valuation of development, and the anticipated effect of development and extended interim zones on City Class 2 rating. A specific guideline for new station construction is now under consideration.

(3) Within the extended zones illustrated, specific developments must be evaluated to determine their conformance to ISO standards and City fire service requirements consistent with a Class 2 rating for the City. Evaluation will be by the Fire Chief of the City of Fresno, and will consider at a minimum the following criteria:

- (a.) Fire-flow requirements
- (b.) Sprinklers
- (c.) Occupancy
- (d.) Fire operations
- (e.) Access roads, equipment
- (f.) Travel time/distance for response

- 1.6 If a development is found to be outside the extended area, the full cost of a new station will be borne by the developer, and the associated O&M will be allocated according to Cost/Revenue Analysis. In this case the City Fire Chief shall make a determination of the minimum level of service required to adequately protect the planned development. He shall also approve final plans and the location of the new station.

2.0 Water Service Delivery Policies

Development requests to extend the current City water service network shall be considered within policies outlined in this section. The first three major policies are:

- 2.1 Extension of water service networks will not draw on the City's General Fund.
- 2.2 Extension of water service networks will not adversely affect the fire rating of the City, in the judgment of the Fire Chief (back-up water and suitable line sizes).
- 2.3 Arrangements made for water service other than through

the City of Fresno system shall provide for sharing the cost of supplemental water supply and recharge programs.

Additional water service delivery policies for the City include the following:

- 2.4 Water will be provided by the City of Fresno to any requestor whose proposed development is approved following Urban Growth Management Process review.
- 2.5 The City will oppose any expansion of special districts or private water companies now providing services, except:
 - (1) In areas designated as County in-fill when conditions are such that it is advantageous to the City to let the district expand, and,
 - (2) For minor capital additions, as defined by the City Director of Public Works.
- 2.6 As an alternative to district expansion, the City will attempt to contract for the purchase of water of suitable quality from a special district or private water company at an acceptable negotiated rate. Service will be provided to the property at the appropriate prevailing City rate. A mandatory connection agreement will be required for joining a City network when it becomes available.
- 2.7 If a new well is required to serve a proposed development, the capital cost will be borne by the developer. The well will be built to City standards, considering both present and future user needs and fire service requirements. Existing provisions for connection fees, oversize charges and rebates will also apply.

3.0 Sewer Service Delivery Policy

Sewer services will be provided to any user whose development is approved following Urban Growth Management Process review. Policies covering the extension of sewer networks are based on four major principles.

1. Expansion of the sewer network must support the long-term goal of a centralized metropolitan sewage collection and treatment facility as strongly suggested by mandatory sewerage agreements as well as by federal and state policies.
2. Large capital facility costs and the lead time required for long-range planning make interim service delivery

methods essential to orderly growth. All interim approaches, however, must be compatible with eventual absorption into a centralized metropolitan system.

3. The cost of expansion must be balanced by appropriate charges and fees.

4. All lines will be sized in accordance with the area to be serviced, life of the facility, and with due regard to planned land use of the tributary area.

The policies governing expansion of the sewer network are as follows:

- 3.1 All permanent sewer lines constructed which are contemplated to be part of the metropolitan system will be public sewers, built to the standards now required by code. In unusual Unit Planned Developments, where permitted by existing ordinances, private sewers may be allowed, with each request reviewed as to feasibility on a case-by-case basis.
- 3.2 Sewer service will be provided to any development outside of the current service area which can qualify under the requirements of the Urban Growth Management Process.
- 3.3 The cost of sewer lines required to connect a development with the existing sewer network will be borne by the developer. The line shall be sized to meet the need of present and future users projected for the area. Oversize costs for off-site lines will be borne by the developer, with rebate provisions as prescribed by City ordinance. All other current fees and charges will apply.
- 3.4 As an interim alternative to immediate connection to existing sewer systems, the City will consider allowing installation of a package treatment plant to serve a specific development. Such a package plant will only be considered as an interim arrangement, subject to the following conditions:
 - (1) The plant will be constructed by the developer, and will meet all applicable health and safety standards.
 - (2) A plant will only be considered when a useable off-site sewer connection is considered by the City to be clearly impractical.
 - (3) The plant will be considered an interim measure only, to be removed when a City sewer network is

extended to within a reasonable distance of the development. The developer will therefore construct, at his cost, a dry line from his development to the location designated by the City for connection of his off-site sewer to the metropolitan system.

(4) The developer will agree to conditions for removal of the plant and define a location to which it shall be removed, and will agree to immediate connection when a suitable metropolitan line is operational at the junction of the dry line referred to above. The City will terminate operation of the package plant when the sewer to which the developer-constructed off-site line connects is in a position to accept his effluent.

(5) The plant will be leased to the City at one dollar a year, and the base terminated when the plant operation terminates.

(6) Selection of operation and maintenance approach will be made by the City. The City will absorb the cost of operation and maintenance up to an amount equal to the portion of the sewer service charge, which would be allocated to operation and maintenance of the central treatment plant if connection to the City sewer system were available. All further costs will be borne by the developer.

3.5 As an additional interim alternative to immediate connection to the sewer system, the City may consider installation of septic tanks, but only under the following conditions:

(1) In AE-20 zoning districts, only for permitted development on single parcels (not applicable to subdivisions) where parcel size is in excess of 36,000 sq. ft. with public water and 100,000 sq. ft. with private water, and further, where the sewer is not "available" under applicable code sections.

(2) In other zoning districts, where all development must be based on connection to a functioning public sewer, only for short term periods (270 days or less) to prevent extreme hardship caused by delays in providing sewer connections not under control of the developer. Where sewer connections can clearly not be made within 270 days, no septic tanks will be permitted.

(3) In any event, the Director of Health shall specifically approve the installation.

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 - (1) The plant will be constructed by the developer, and will meet all applicable health and safety standards.
 - (2) A plant will only be considered when a useable off-site sewer connection is considered by the City to be clearly impractical.
 - (3) The plant will be considered an interim measure only, to be removed when a City sewer network is

extended to within a reasonable distance of the development. The developer will therefore construct, at his cost, a dry line from his development to the location designated by the City for connection of his off-site sewer to the metropolitan system.

(4) The developer will agree to conditions for removal of the plant and define a location to which it shall be removed, and will agree to immediate connection when a suitable metropolitan line is operational at the junction of the dry line referred to above. The City will terminate operation of the package plant when the sewer to which the developer-constructed off-site line connects is in a position to accept his effluent.

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(2) In other zoning districts, where all development must be based on connection to a functioning public sewer, only for short term periods (270 days or less) to prevent extreme hardship caused by delays in providing sewer connections not under control of the developer. Where sewer connections can clearly not be made within 270 days, no septic tanks will be permitted.

(3) In any event, the Director of Health shall specifically approve the installation.

(4) For AE-20 districts, no adverse impact shall have been identified in the environmental impact review process, and on-site and off-site dry lines shall be provided as set forth in applicable codes, ordinances, or resolutions, or as otherwise required by the Service Delivery Review Committee, to facilitate an active sewer connection at the earliest practicable date.

(5) Where septic tanks are permitted in extreme hardship situations as noted above, the Service Delivery Review Committee may require additional off-site construction on the part of the developer to insure an active connection within the 270-day interim period.

(6) In each case, where septic tanks are permitted, an enforceable agreement shall be entered into assuring prompt connection and removal of septic tanks as soon as connecting sewers are available, as determined by the Public Works Director.

3.6 As an additional interim alternative to immediate connection to an existing sewer system, the City will consider contracting for sewer services with a special district approved to deliver such a service, but under the following conditions:

(1) A dry line will be constructed, at developer cost, from the development to the location designated by the City for connection of the off-site sewer to the metropolitan system.

(2) The special district will agree to provide the service, and agrees to contract for a specified capacity for a specified period of time. The time must be as long as the City estimates it will take to get regular connection service to the designated connection point.

(3) The developer pays all standard City fees, as well as special district fees.

(4) A mandatory agreement to connect to the metropolitan sewer line will be made, effective when the City determines that such connection can be made.

(5) On-site sewer lines and connecting lines to the special district will be owned and maintained by the City.

(6) The City agrees to reimburse the special district for costs of operation and maintenance up to the portion of the sewer service charge which would be allocated to operation and maintenance of the central treatment facility if connection to City sewer were

available. All further costs will be borne by the developer.

4.0 Street-Related Construction Policy

Construction of major and minor streets may be necessary to support a new development. Current City practices, codes, and ordinances define the standards which street improvements must meet, as well as the approach to financing the capital cost of these improvements.

It is current policy for the City and the developer to share the construction cost of a select system street adjacent to the development. As contiguous development continues, the City can phase actual construction of the full-standard select system street to meet actual needs. These deferrable costs are considered in the Cost/Revenue Analysis. However, if a development is proposed which is not contiguous to the existing fully developed select system, the existing size and quality of the streets connecting the proposed development to the currently developed select system may be unacceptable for meeting the traffic demand, or for City service and emergency vehicles. In such cases, upgrading of the portions of the select system between the proposed development and the currently developed select system must occur immediately to serve the new development. This is not a deferrable capital cost, and a modified policy is required.

The following policies, therefore, apply to street-related construction:

- 4.1 Current policies on streets and street-related construction will continue when extending street networks to meet the needs of a new development. Services will be provided by the City for any development approved under the Urban Growth Management Process.

However, in the Urban Growth Management Area, in addition to the normal requirements for improvements on a major street adjacent to a proposed development, the applicant shall be responsible for 24' of permanent street pavement in the center section of a major street. This shall also include the paving of left turn slots at 1/2 and 1/4 mile streets as well as any left turn slots required to serve the proposed development.

- 4.2 When a segment of a designated major street is required to provide traffic access and circulation between a proposed development and the existing developed major street network which complies geometrically with the master plan of streets and highways, this segment must

meet the following criteria:

(1) The street must be capable of safely providing for the anticipated traffic flow generated by the proposed development.

(2) The street must be capable of safely providing for the passage of municipal service and emergency vehicles.

If the development and condition of such a segment of a major street does not meet this criteria as defined by the Service Delivery Review Committee, the street must be improved in conjunction with the proposed development that this street is intended to serve. The cost of such improvements including the cost of the acquisition of any required right-of-way will be borne by the applicant.

II COST/REVENUE ANALYSIS

INTERPRETATION OF RESULTS

Once the Service Delivery Review has been successfully completed on a development proposal, the Cost/Revenue Analysis can be undertaken. The Review will determine whether or not the new development can be served in conformance with the City's policies. This information about the City's response to a new development, combined with specifics about the proposal itself, is translated by the Cost/Revenue Analysis into a statement of the development's fiscal impact on the City.

This accounting type of analysis is necessary to calculate the financial impact of new development because many of the City's services cannot be paid for by fees or charges. When land is developed for any purpose, it creates both an immediate demand for these services and a flow of revenues to the City from a variety of sources. For some services, such as waste disposal and sewer maintenance provided by enterprise departments, revenues are matched directly against costs in the form of user charges. However, the costs of most City operations are paid for out of General Funds which are not related to the services being provided. This separation of costs and revenues makes it impossible to estimate the fiscal impact of new development without an accounting model which will both allocate the development's fair share of costs and estimate revenues that it will produce from all sources.

The Cost/Revenue Analysis is presented as two sets of equations constructed by using information from the City's operating departments and the historical pattern of revenue flow. The objective of the Cost/Revenue Analysis is:

To measure the fiscal impact of new development on the City's General Fund by calculating direct and indirect cost impacts and comparing them with revenue generated.

The analysis, described in detail in the following section, calculates the General Fund costs and revenues attributable to the proposed development for each of the five years following its anticipated completion. The present value* of each year's total costs and total revenues will then be calculated, using a discount rate set at the City's average rate of return on investment for the prior five years.

*The present value is calculated from the mid-point of each of the five years back to a date six months prior to the completion of the construction.

The output of the analysis will be reduced to three figures:

1. Revenue expected to be generated by the new development over a five-year period.
2. Operating and maintenance costs allocated to the new development over a five-year period.
3. Capital costs (General Fund only) allocated to the new development over five years of a 15-year period of amortization.

In interpreting these figures for recommendations to the Council, the following procedures will be used:

1. Revenues will be compared first to operating and maintenance costs. If revenues do not cover these costs, development is presumed to be premature and staff will generally recommend that the request be denied. No cash contributions from the developer will be permitted, since an operating and maintenance deficit will continue indefinitely. The developer will be advised of the results of the analysis and, if negative, be allowed to amend his proposal before any recommendation is made to the Council.
2. If revenues are greater than operating and maintenance costs, the surplus revenue will then be compared to the capital cost. If surplus revenue is greater than the total capital requirements, the development is presumed to be revenue positive, and staff will generally recommend that it be approved by the Council.
3. If the capital cost is greater than the surplus revenue, the development is presumed to be deficient only in its initial capital requirements, and it will be recommended that the net capital cost be paid by the developer as a condition of Council approval of the proposal.

The general service delivery policy stated earlier, that the City should not expend General Fund monies to extend public facilities, would indicate that the total capital requirements be charged to the developer. However, since the capital costs identified by the cost analysis reflect a proportionate share of the area's planned facilities which may not be built immediately, it is appropriate to credit the development with the five-year surplus of revenues over operating and maintenance costs.

When a net capital cost requirement is identified, it can be credited by a source of revenue which is unique to the proposed development.

Some developments may be proposed on land which has been

undeveloped in the City for more than a year. No approach has been developed to assess the costs generated by the vacant land, but it is assumed that no more than 10 percent of the City taxes collected on the property could be assigned to cost. Therefore, 90 percent of the value of City taxes collected on a piece of property prior to development can be applied against the net capital requirements. It is intended that this tax credit be tied to the land which generates it, and not be assigned to a development elsewhere. Interest on tax credits will be calculated at the rate of return on invested funds experienced by the City during the period.

The procedure for establishing a proposed development's net capital cost requirement is based on the determination that General Fund capital improvements specified in the equations are to be amortized over a 15-year period. Since the Cost/Revenue Analysis is based on a 5-year period of analysis, the capital cost equations allocate 5/15 or 1/3 of the total cost for required improvements. This simple ratio is used instead of an interest bearing amortization schedule because the City does not currently borrow funds to finance capital construction improvements.

When an official proposal has been reviewed under the Urban Growth Management Process, the Council will receive a staff report containing the following information:

1. A report on the Service Delivery Review indicating public facilities which will be installed at the developer's expense.

2. A summary of the data from the specific development proposal used to run the analysis.

3. A summary of the costs (Capital and Operating & Maintenance) and revenues calculated for the development and discounted to the current year.

4. A summary staff recommendation interpreting these figures along the guidelines detailed above.

ASSUMPTIONS

The analysis is based on a set of assumptions concerning City operations and the nature of new developments' impact upon them. Since there is currently no established standard for this type of accounting system, its assumptions must be evaluated on the subjective basis of equitability to both the land development industry and the current City taxpayers. The major assumptions are:

1. Only City services are being considered. The

analysis is not intended to calculate the impact to development on any other level of government.

2. Services provided by enterprise account divisions are included in the service delivery review policies, but are not in the Cost/Revenue Analysis itself. It is assumed that operating and maintenance costs will continue to be covered by user revenues. It is proposed that if new development is causing increasing costs in providing these services, the problem is more appropriately treated by differential fee adjustments than by higher allocations in the Cost/Revenue Analysis.

3. Equations in this document are developed based on the 1974-75 City budget figures. The analysis will be updated effective January 1 each year to incorporate the current budget figures. Costs and revenues projected for future years from the current budget will not be adjusted for changes in the value of the dollar.

4. It is assumed that new development should be allocated both the increased service delivery costs which it will generate directly and a fair proportion of existing costs which are City-wide in nature.

5. All people inhabiting a new development are assumed to be new City residents (or newly formed families) in the calculation of both costs and revenues. This assumption is necessary, until data is available to provide a more accurate figure. As long as the City-wide vacancy factor is not increasing, these new houses do mean new residents somewhere in the City. More important, most of the revenues are related more to property or population than to income, so this assumption does not seriously bias the results of the analysis.

INFORMATION REQUIREMENTS

One assumption of the Cost/Revenue Analysis, not listed above, is that specific information about a proposed development will be provided by the requestor. Much of this data is already collected on the existing zone change and environmental assessment applications which will be required on any development being analyzed under this process. However, there is additional data which should be used in order for the analyses to be as accurate as possible. Specifically, for residential development the following information will be requested:

1. Number of acres
2. Number and market value of lots
3. Number of houses/apartments by size (number of bedrooms) and price/rental range
4. Number of residential street miles inside the development.

Conversion tables translate this data into the information used in the cost and revenue equations themselves:

1. Population P
2. Family income
3. Assessed valuation
4. Acres A

For commercial and industrial development the following information will be requested:

1. Number of acres
2. Area of building(s)
3. Description of the proposed commercial or industrial uses.
4. Value of the facilities
5. Value of the land
6. Estimated annual retail or wholesale sales

If this data cannot be provided by the applicant, it will be estimated by staff based on the restrictions of the zoning classification being requested, and a "worst case" analysis will be performed.

COST ANALYSIS: GENERAL APPROACH

The cost side of Cost/Revenue Analysis is a special type of accounting designed to calculate the portion of City General Fund costs which can be allocated to a new development. To approach the problem, financial data from the City's budget and operational data from department records have been summarized into a set of mathematical statements or equations. In order to calculate the City's cost which will be generated by a new development, data from the development plan is inserted in the equations and totals are taken for each service being provided.

For example, if the cost of operating and maintaining a fire station were \$400,000 annually, and the station serves commercial development within an area of two square miles, the equation for this cost would be:

$$\begin{array}{l} \text{Fire Station Operations \& Maintenance (O\&M) =} \\ \frac{\text{Area of New Development}}{2 \text{ sq. mi.}} \times \$400,000 \text{ (Total O\&M Cost)} \end{array}$$

Therefore, if a development covering 1/2 square mile were proposed for this fire station area it would be allocated an annual cost of:

$$1/4 \times (\$400,000) = \$100,000 \text{ Allocated Fire Station O\&M Cost}$$

In practice the method of allocating costs of City operations will vary with respect to the specific operations being analyzed. In the example above, the development was being allocated 25 percent of the cost of fire suppression in its immediate area, based on its proportion of the total area being served. However, the cost of administering the Fire Department City-wide must be allocated on a completely different basis. In fact, the cost analysis classifies the cost of City services into the four categories of Direct Service Costs, Indirect Service Costs, Departmental Administrative Costs, and General Administrative Costs.

Direct Service Costs

Direct costs are allocated for services which the City will provide within the boundaries of the new development. This type of service, typified by fire suppression or street sweeping, is found in the Police, Fire, Parks & Recreation, and Public Works Departments. The nature of these direct services is that they will generate increased workload as soon as the development is completed.

It should be stressed that the analysis allocates costs based on the City's current methods and costs of service delivery. Since the equations will be adjusted annually to correspond with the City budget, improvements in service delivery will be reflected in the analysis as they become operational.

Indirect Service Costs

Indirect costs are allocated for services provided outside the new development which benefit all City residents to the same extent.

The cost of these services, such as Woodward Park maintenance, or fire prevention activity is viewed as a 'buy-in' cost of joining the City system. Although a new development will generate some increases in indirect costs, the equations allocate this type of cost as a proportionate share of the City-wide total and are not intended to calculate the incremental costs attributable to a new development itself.

Indirect services are provided by the four departments which provide direct services: Police, Fire, Parks & Recreation, and Public Works. In addition, this type of cost is allocated for some activities of the Finance and Planning and Inspection Departments, as well as for non-departmental City-wide costs, such as the City Council.

Departmental Administrative Cost

This is the administrative cost of those departments and divisions which provide direct and indirect services to new development. Analysis of City budgets on the past five years indicates that these administrative costs have risen proportionately with the costs of the services themselves.

General Administrative Cost

General administrative costs are allocated for those departments and divisions which do not provide a direct service to new development, but instead support the departments which deliver their direct and indirect services.

The cost of these administrative services (e.g., those provided by the Personnel and Labor Relations Department and Administrative Management) is allocated by relating them proportionately to the departmental administrative cost of the departments providing direct and indirect services.

COST ANALYSIS: DERIVATION OF EQUATIONS

The four cost categories described in the preceding section are used individually and in combination to allocate an equitable portion of each budgeted City cost to a proposed development. First, there are the major service delivery departments: Fire, Police, Parks & Recreation, and Public Works which incur direct, indirect, and departmental administration costs.

Second, the Planning and Inspection Department incurs only indirect costs because of new development, since their direct services are paid for by fees.

Finally, there are the General Administration departments which incur only administrative costs based on the amount of support they provide the departments providing direct and indirect services to new development.

The cost equations discussed next are grouped according to this format.

1. Fire Service

Fire service, as discussed under Service Delivery Review policies, is provided from eleven fire stations (Station No. 12 is planned), each covering a limited and

well defined area. The result is that most of the costs allocated to a new development will be for direct protection of the new area itself and will be calculated on the basis of the proportion of the station's capacity which the new development is using up.

The following sections describe the rationale used to derive the specific cost equations, Direct, Indirect, and Administrative, which allocate the cost of providing fire protection to new residential, commercial, and industrial development.

Direct Service Costs

As discussed under the policy statements for fire service, the principal element in the direct cost of fire service is the location of the fire station (engine company) which will provide first response coverage to the proposed development.

With respect to first response coverage, the Service Delivery Review will determine that the proposed development is in one of three possible situations:

- (1) It lies within a permanent fire station area,
- (2) It lies within an extended fire station area,
- (3) It lies beyond any fire station area.

In case (1) the development will be responsible for a share of the fire station operations and maintenance costs in proportion to the development's area vis-a-vis the permanent fire station area. Since capital costs have already been expended, the capital cost allocation will be zero.

In case (2) it is presumed that at some time in the future, the development will be served by a new fire station. Therefore, the cost equation allocates operating and maintenance costs on the basis of the development's proportion of an average fire station area, and also allocates the capital cost of a permanent station on the same basis.

In case (3) the service delivery policies indicate that the developer must agree to pay the full capital cost of a temporary fire station and necessary equipment as determined by the Fire Department, and that 100 percent of the operating and maintenance cost of this station will be allocated to the proposed development. (This 100 percent figure will be reduced proportionately if the new station would cover development which is situated in an extended fire station area.)

It should be stressed that the running distance limits which define an engine company's limits of coverage are much more restrictive for commercial and industrial land uses than for single family homes. Generally, this means that a commercial development must be within one and one-half miles of a fire station for permanent coverage, and within two miles for extended coverage, while the corresponding residential distances are two and three miles, respectively. However, each development proposal will be considered by the Fire Chief in the Service Delivery Review, and he will determine whether it would be covered on a permanent or extended basis.

The equations themselves use a weighting system, called the Service Demand Factor, to account for the fact that low density residential development demands less fire service per acre than do commercial and industrial development.

So far this discussion of direct costs of fire service has been limited to the first response engine company which will provide primary protection to the proposed development. However, the Fire Department responds to every call for service with a truck company, as well as an engine company. Therefore, a proportionate share of truck company operating and maintenance costs is also allocated to a proposed development.

These considerations are summarized on the following Service Demand Table which expresses a proposed development's demand for fire service in terms of the total acreage of similar development which could be served by both an engine and a truck company. Therefore, the calculation of direct costs accounts for the fact that single family residential developments create less demand per acre for fire protection than do commercial or industrial developments. The classifications shown in this table are based on the fire service demand characteristics used by the Insurance Services Office (ISO).

Code	Running Distance- Miles		Service		General Description
	Engine	Truck	Engine	Truck	
1	2	3	5,120	11,520	Single Family & Two Family Residential
2	1½	2	2,880	5,120	Multi-family Residential Neighborhood Commercial under 15,000 sq. ft.
3	1	1½	1,280	2,880	Commercial over 15,000 sq. ft. and Industrial
4	¾	1	720	1,280	Commercial or Industrial with the above ground storage of flammables.

The following equations have been developed from these considerations.

$$\boxed{\text{FIRE SERVICE DIRECT COST}} = \boxed{\text{FIRE STATION CAPITAL COST}} + \boxed{\text{ENGINE COMPANY OPERATING \& MAINTENANCE COST}} + \boxed{\text{TRUCK COMPANY OPERATING \& MAINTENANCE COST}}$$

$$\boxed{\text{FIRE STATION CAPITAL COST}} = \frac{A}{\text{Service Area (Table)}} \times \text{Cost of Fire Station - Land, Building and Equipment (\$227,000)} \times \frac{1}{3}$$

Note: This equation is used only when proposed development is located in an extended fire station area.

$$\boxed{\text{ENGINE COMPANY OPERATING AND MAINTENANCE COST}} = \frac{A}{\text{Service Area (Table)}} \times \text{Annual Operating \& Maintenance Cost of Engine Company (\$307,900)}$$

OR

$$\boxed{\text{ENGINE COMPANY OPERATING AND MAINTENANCE COST}} = \frac{\text{Proportion of Temporary Station's Capacity Required by New Development}}{1} \times \text{Annual Operating \& Maintenance Cost of Engine Company (\$307,900)}$$

Note: This figure will be 100% unless the new station would cover developed area which is situated in an extended engine company area

$$\boxed{\text{TRUCK COMPANY OPERATING \& MAINTENANCE COST}} = \frac{A}{\text{Service Area (Table)}} \times \text{Annual Operating and Maintenance Cost of Truck Company (\$350,850)}$$

Indirect Service Costs

Separate equations are used to calculate the indirect cost of fire service for residential and non-residential development.

The indirect allocation for residential development takes into account only the cost of the City-wide fire alarm communications system. The equation for commercial and industrial development also accounts for the fire prevention activities which serve them.

The following equations have been derived from these considerations.

$$\begin{aligned}
 &\boxed{\text{FIRE SERVICE INDIRECT COST (Residential)}} = \frac{P}{\text{City Population} + P} \times \text{Land Use Factor} \times \text{Fire Alarm O \& M} \\
 &\quad \quad \quad (176,800) \quad \quad \quad (.72) \quad \quad \quad (\$221,005) \\
 &\boxed{\text{FIRE SERVICE INDIRECT COST (Commercial)}} = \left[\frac{A}{\text{City Commercial Acres} + A} \times \text{Land Use Factor} \times \text{Fire Alarm O \& M} \right] \\
 &\quad \quad \quad (5695) \quad \quad \quad (.23) \quad \quad \quad (\$221,005) \\
 &\quad \quad \quad + \left[\frac{A}{\text{Total Commercial and Industrial City Acres} + A} \times \text{Annual Fire Prevention O \& M} \right] \\
 &\quad \quad \quad (6933) \quad \quad \quad (\$354,395) \\
 &\boxed{\text{FIRE SERVICE INDIRECT COST (Industrial)}} = \left[\frac{A}{\text{City Industrial Acres} + A} \times \text{Land Use Factor} \times \text{Fire Alarm O \& M} \right] \\
 &\quad \quad \quad (1238) \quad \quad \quad (.05) \quad \quad \quad (\$221,005) \\
 &\quad \quad \quad + \left[\frac{A}{\text{Total Commercial and Industrial City Acres} + A} \times \text{Annual Fire Prevention O \& M} \right] \\
 &\quad \quad \quad (6933) \quad \quad \quad (\$354,395)
 \end{aligned}$$

Departmental Administrative Cost

The administrative cost allocation is based on the proportion that the new development's direct and indirect costs represent of the Fire Department's total operating and maintenance cost. Although this relationship between operating and maintenance (O&M) and administrative cost is expressed as a constant ratio, the administrative cost allocated to a single development is limited to five per cent of the total. The equation is shown as follows:

$$\boxed{\text{FIRE SERVICE ADMINISTRATIVE COST}} = \frac{\text{New Development Direct O\&M Cost} + \text{New Development Indirect O\&M Cost}}{\text{Total Fire Department O\&M Cost}} \times \text{Total Fire Department Administrative Cost}$$

(\\$ 5,805,200) (\\$435,400)

Note: This Cost not to exceed 5% of total Fire Department administrative cost for any one proposal

2. Police Service

The Police Department provides a complex array of protective and investigative services to residents and businesses in all areas of the City. The Service Delivery Review policies covered police service as one of those which can be extended to fringe areas of the City without major capital expenditures, at least in the next five years.

The primary City policy is that all services will be provided directly by the City Police Force, and that contracting for any of these services will not be considered.

The cost equations are based on the assumption that new residents generate a demand for police protection not only on their neighborhoods, but also in every part of the City where they work, shop, and play.

The following sections describe the rationale used to derive the specific cost equations - direct, indirect, and administrative - which allocate the cost of providing police service to new residential, commercial, and industrial development.

Direct Service Costs

The direct costs of police services are allocated for two types of activity performed by the Patrol Division; response to calls for service, and preventive patrol.

During the current fiscal year the Fresno Police Department will respond to 143,000 calls for service. The Patrol Division will handle most of these (81 percent) and the rest will be assigned to the Traffic Division.

When a Patrol Officer responds to a call, he is supported to some degree by the Technical Services Division (Communications, Records, Identification), the Special Enforcement Services Division, and the Investigation Division. Therefore, the cost of a call used in the analysis is calculated on the basis of the Patrol Division's time spent responding to calls, and the cost of the direct support provided by other divisions. Although this cost per call is a City-wide average, the number of calls per year shown in the analysis for a development proposal is estimated on the basis of Police Department operating statistics, and generally reflects a much lower number of calls per acre for new development than the average number City-wide.

The Police Department will, at the Service Delivery Review, provide an official estimate of the number of calls per acre to be used in an analysis, and at this review any special protective features of a new development can be taken into con-

sideration.

The second type of direct cost allocated to new development is preventive patrol time. The Patrol Division spends most of its time responding to calls for service; however, the Police Department has been able to maintain the standard of 14 percent of this division's time devoted to preventive patrol.

The cost is allocated to the three basic land use categories assuming a general relationship between the calls for service experience and the intensity of preventive patrol.

The third type of direct cost, the distance factor, is included because of the current pattern of patrol activity in the City. At the present time there are sixteen police beats covering the City, and all patrol units are dispatched from Police Headquarters.

The Police Department considers a travel time of fifteen minutes to get on and off a beat area as acceptable, but beyond that the extra distance is, in effect, increasing the cost of patrol activities. This means that the distance factor will be applied to developments north of Herndon Avenue, unless the development is adjacent to an area which is already being served.

The following equations have been developed from these considerations.

$$\boxed{\text{POLICE SERVICE DIRECT COST}} = \boxed{\text{COST OF CALLS FOR SERVICE}} + \boxed{\text{COST OF PREVENTIVE PATROL}} + \boxed{\text{DISTANCE FACTOR}}$$

$$\boxed{\text{COST OF CALLS FOR SERVICE}} = \text{A} \times \text{Estimated Calls Per Acre} \times \text{Cost per call for Patrol Division and Support Division (\$51.20)}$$

Table of Annual Calls Per Acre	
Land Use	Calls Per Acre
New Residential	
Subdivision	2.0
Commercial	4.3
Industrial	1.1

COST OF PREVENTIVE
PATROL

- A X Preventive Patrol
Cost Per Acre

Table of Preventive Patrol Cost Per Acre

Land Use	Annual Cost/Acre
Residential	\$14.07
Commercial	24.76
Industrial	4.23

DISTANCE
FACTOR

= Miles beyond accepted service radius X Annual Cost per mile
for daily patrol trip
(\$375)

Note: If proposed development is adjacent to existing developed area,
distance factor is 0

Indirect Service Costs

The indirect cost of police service allocated to new development is made up of several components in which the demand for service is increased by the new residents, or the benefit from the service is City-wide in nature.

The first indirect cost component is the Traffic Division. Although some traffic calls will be generated in the new development's area, it is assumed that the affect of the new residents will be felt as increased traffic calls on the heavily travelled streets throughout the City. Therefore, the total cost of the Traffic Division is allocated as an indirect cost.

The second component of indirect cost is the police protection required in the downtown area and the regional shopping centers: the Mall, Manchester Center, and Fashion Fair.

The assumption of this analysis is that the police activity required in central City areas is a City-wide problem and should be allocated to all City residents. In the case of the three shopping centers, it is assumed that because they serve the entire City, the cost allocation of police protection should be divided equally between the commercial facilities themselves and the residents who are the customers.

Other City-wide police costs which are components of the indirect cost allocation include the Vice Division, Special Services, and Crime Prevention.

These indirect costs are allocated to residential, commercial, and industrial developments by the following equations.

POLICE SERVICE INDIRECT COST FOR RESIDENTIAL DEVELOPMENT	=	$\frac{P}{\text{City Population} + P}$ (176,800)	X	Land Use Factor (.72)	X	O&M Cost of City-wide Police Services (\$2,722,000)
POLICE SERVICE INDIRECT COST FOR COMMERCIAL DEVELOPMENT	=	$\frac{A}{\text{City Commercial} + A}$ Acres (5695)	X	Land Use Factor (.23)	X	O&M Cost of City-wide Police Services (\$2,722,000)
POLICE SERVICE INDIRECT COST FOR INDUSTRIAL DEVELOPMENT	=	$\frac{A}{\text{City Industrial} + A}$ Acres (1238)	X	Land Use Factor (.05)	X	O&M Cost of City-wide Police Services (\$2,722,000)

Note: City-Wide Police Services include Traffic Division; Vice; Special Services; Cost of downtown calls, and half the cost of calls in regional shopping centers

Departmental Administrative Cost

Police Department Administration includes the Office of the Chief of Police, the Administrative Services Division, and the Business Office. The administrative cost allocation is based on the proportion of the new development's direct and indirect O&M cost to the total Police Department O&M costs.

POLICE- ADMINISTRATIVE COST	=	$\frac{\text{New Development Police Direct O\&M} + \text{New Development Police Indirect O\&M}}{\text{Total Police Department Operating \& Maintenance}}$ (\$8,230,000)	X	Total Police Administration Cost (\$524,000)
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Note: This Cost not to exceed 5%.

3. Parks and Recreation Services

The Parks and Recreation Department provides a variety of facilities and services both at the neighborhood level and on a City-wide or regional basis. The equations discussed below consider the direct park services provided at the neighborhood level, to benefit only residents; the City-wide services which benefit commercial and other land uses to some degree in addition to the local residents, are discussed immediately following.

Direct Service Costs

The specific Parks and Recreation Department services which fall under direct costs include neighborhood parks, traffic islands, and street trees.

The costs of neighborhood parks are based on a planning standard of one 10-acre park per square mile of residential development, although this standard can be modified at the Service Delivery Review if warranted by special design considerations in the development proposal.

The capital cost of neighborhood parks is divided into three phases. In year one, the cost of land acquisition is allocated; in year two, the cost of landscaping is allocated; and in year three, the cost of minimum recreation improvements is added.

Corresponding operating and maintenance costs include school recreation services (portion not covered by school district reimbursement) for years 1 & 2, plus ground maintenance and recreation services at the neighborhood park itself in years 3, 4, & 5 after it has been constructed.

Traffic island landscaping capital and maintenance costs are allocated to residential units and to commercial and industrial parcels. The basis used is the estimated number of trips generated by these land uses as a proportion of total trips generated in either the Woodward Park Community Plan area, the Bullard-Marks Specific Plan area, and in an average square mile grid area.

Street trees on residential streets are currently installed at the developer's expense. The maintenance cost for these trees is allocated to residential development only. From these considerations the following equations have been developed.

$$\begin{array}{c}
 \boxed{\text{PARKS AND RECREATION DIRECT COST}} = \boxed{\text{NEIGHBORHOOD PARKS- CAPITAL}} + \boxed{\text{NEIGHBORHOOD PARKS OPERATING \& MAINT.}} + \boxed{\text{TRAFFIC ISLAND CAPITAL}} \\
 + \boxed{\text{TRAFFIC ISLAND MAINTENANCE}} + \boxed{\text{STREET TREE MAINTENANCE}}
 \end{array}$$

$$\boxed{\text{NEIGHBORHOOD PARKS- CAPITAL}} = A \times \left[\begin{array}{c} \text{Land Cost per Acre} \\ \text{Year 1} \\ \$119 \end{array} + \begin{array}{c} \text{Landscaping Cost per Acre} \\ \text{Year 2} \\ \$131 \end{array} + \begin{array}{c} \text{Recreation Improvements Cost per Acre} \\ \text{Year 3} \\ \$79 \end{array} \right] \times \frac{1}{3}$$

$$\boxed{\text{NEIGHBORHOOD PARKS- O\&M}} = A \times \left[\begin{array}{c} \text{School Rec. Cost per Acre} \\ \text{Years 1\&2} \\ \$20.34 \end{array} + \begin{array}{c} \text{School Recreation, Park Maintenance, \& Recreation Services} \\ \text{Years 3, 4 \& 5 - \$80.40} \end{array} \right]$$

$$\boxed{\text{TRAFFIC ISLAND CAPITAL}} = \frac{\# \text{ OF UNITS/ ACRES}}{\text{Traffic Island Landscaping Cost per Unit/ Acre (Table)}} \times \frac{1}{3}$$

TABLE- TRAFFIC ISLAND LANDSCAPING CAPITAL COSTS			
Type of land use	Cost per unit or acre for:		
	Bullard Marks plan area	Woodward Park plan area	Average Standard Grid area
Single Family Residential Unit	5.88	9.14	7.39
Multi-Family Residential Unit	3.40	5.29	4.28
Commercial-Neighborhood Acre	310.80	482.85	390.72
Commercial-Community or General Acre	214.48	333.21	269.63
Commercial-Regional Acre	164.08	254.91	206.27
Office Acre	296.80	461.10	373.12
Industrial Acre	131.60	204.45	165.44

**TRAFFIC ISLAND
MAINTENANCE**

OF
UNITS/ X Traffic Island
ACRES Landscaping Maint.
Cost per Unit/ Acre
(Table)

TABLE- TRAFFIC ISLAND LANDSCAPING MAINTENANCE COSTS

<u>Type of land use</u>	Cost per unit or acre for:		
	<u>Bullard Marks plan area</u>	<u>Woodward Park plan area</u>	<u>Average Standard Grid area</u>
Single Family Residential Unit	\$1.75	\$2.27	\$1.65
Multi-Family Residential Unit	1.02	1.31	.96
Commercial- Neighborhood Acre	92.69	119.88	87.14
Commercial- Community Acre	63.96	82.73	60.13
Commercial- Regional Acre	48.93	63.29	46.00
Office Acre	88.51	114.48	83.21
Industrial Acre	39.25	50.76	36.90

Note: Costs in the Traffic Island Landscaping capital and maintenance tables have been generated on the basis of estimated trip generation for the various land use categories. The cost per dwelling unit, or per acre for commercial and industrial development, varies depending on the proposed location. Costs have been calculated for the Bullard Marks specific plan area, the Woodward Park community plan area, and for a standard square mile grid for areas without an updated plan.

**STREET TREE
MAINTENANCE**

OF
TREES ON
RESIDENTIAL X
STREETS Annual Maintenance
Cost per Tree
(\$4.16)

Indirect Service Costs

City-wide Parks and Recreation services include the operating and maintenance costs for Roeding and Woodward Parks; operating and maintenance costs of the Zoo and swimming pools (portion not covered by fees); maintenance costs of the Mall; and the cost of maintaining traffic islands on the select street system. These costs are allocated to all types of developments in the following equations.

$$\boxed{\text{PARKS \& RECREATION INDIRECT COST FOR RESIDENTIAL DEVELOPMENT}} = \frac{\text{City Population} + \text{P}}{(176,800)} \times \text{Land Use Factor} (.72) \times \text{O\&M Cost of City-wide Parks Services} (\$1,784,400)$$

$$\boxed{\text{PARKS \& RECREATION INDIRECT COST FOR COMMERCIAL DEVELOPMENT}} = \frac{\text{City Commercial Acres} + \text{A}}{(5695)} \times \text{Land Use Factor} (.23) \times \text{O\&M Cost of City-wide Parks Services} (\$1,784,400)$$

$$\boxed{\text{PARKS \& RECREATION INDIRECT COST FOR INDUSTRIAL DEVELOPMENT}} = \frac{\text{City Industrial Acres} + \text{A}}{(1238)} \times \text{Land Use Factor} (.05) \times \text{O\&M Cost of City-wide Parks Services} (\$1,784,400)$$

Note: City-Wide Parks & Recreation Services include Community Parks, Zoo, Mall, Swim Pools and one half of Traffic Island Maintenance

Departmental Administrative Cost

The administrative cost allocation is based on the proportion of the new developments' direct and indirect O&M costs to the total Parks and Recreation administrative costs.

$$\boxed{\text{PARKS \& RECREATION ADMINISTRATIVE COST}} = \frac{\text{New Development Direct O\&M Costs} + \text{New Development Indirect O\&M Costs}}{\text{Total Parks \& Recreation O\&M Costs} (\$3,845,400)} \times \text{Administrative Cost of Parks \& Recreation Department} (\$290,600)$$

Note: This Cost not to exceed 5% of total Parks & Recreation Department administrative cost for any one proposal

4. Public Works Services

As stated in the assumptions, the enterprise services (sewer, water and waste disposal) have been excluded from the analysis because the costs are covered by user revenues. However, the capacity to deliver these services to a proposed development is considered in the Service Delivery Review part of the process.

The Public Works activities which are included in the analysis are generally related to the street system. There are two kinds of streets considered; the select system or major streets system, and the residential street system.

These costs are allocated as direct, indirect, or administrative, as discussed below.

Direct Service Costs

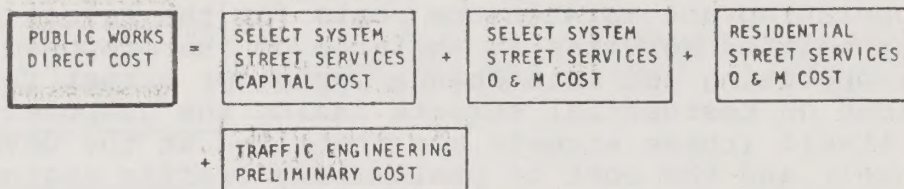
Direct costs for Public Works services include capital and operating and maintenance costs for the select system street related services in the area of the proposed development; operating and maintenance costs for street related services on residential streets inside the proposed development itself (these streets are installed at the developer's expense); and the cost of preliminary traffic engineering services for the development itself (first year only).

Street related construction includes traffic signals and traffic island curbs, as well as street construction. Select system street related operating and maintenance costs include street maintenance, street sweeping, traffic signal maintenance, street lighting (assuming lights installed by PG&E), and street marking and signing.

These select system street related costs are allocated to residential units and to commercial and industrial acres. The basis used is the estimated number of trips generated by the new development as a proportion of total trips generated in either the Woodward Park Community Plan area, the Bullard Marks Specific Plan area, or in an average square mile grid area.

Residential street related services, allocated on the basis of residential street miles in the proposed development, include street maintenance, street sweeping costs, and street lighting.

There is also a distance factor for street sweeping which allocates the cost of traveling time from the maximum service radius (northern limit of the exclusion area) to the proposed development. If the development is adjacent to an area currently serviced, the distance factor is eliminated. These considerations have been used to construct the following equations.



$$\boxed{\text{SELECT SYSTEM STREET SERVICES CAPITAL COST}} = \begin{array}{l} \# \text{ OF UNITS (residential)} \\ \text{OR ACRES (non-residential)} \end{array} \times \begin{array}{l} \text{Select System Street} \\ \text{Services Capital Cost per} \\ \text{Unit or Acre} \\ \text{(Table)} \end{array} \times \frac{1}{3}$$

TABLE- SELECT SYSTEM STREET SERVICES CAPITAL COSTS			
Type of Land use	Cost per unit or acre for:		
	Bullard Marks plan area	Woodward Park plan area	Average Standard Grid area
Single Family Residential Unit	\$104.05	\$114.03	\$104.11
Multi-Family Residential Unit	60.25	66.03	60.28
Commercial- Neighborhood Acre	5500.00	6027.00	5503.00
Commercial- Community Acre	3796.00	4159.00	3797.00
Commercial- Regional Acre	2904.00	3182.00	2905.00
Office Acre	5252.00	5756.00	5255.00
Industrial Acre	2329.00	2552.00	2330.00

Note: Costs in this table have been generated on the basis of estimated trip generation for the various land use categories. The cost per dwelling unit, or per acre for commercial and industrial development, varies depending on the proposed location. Costs have been calculated for the Bullard Marks specific plan area, the Woodward Park community plan area, and for a standard square mile grid for areas without an updated plan. Street Services include street construction (portion not paid by developer), traffic signals and traffic island curbs.

SELECT SYSTEM
STREET SERVICES
O&M COST
RESIDENTIAL

$$= A \times \left[\begin{array}{c} \text{Base O\&M} \\ \text{Cost per acre} \\ \text{(Table)} \end{array} \right] + \left[\begin{array}{c} \text{\# OF DWELLING} \\ \text{UNITS} \end{array} \right] \times \left[\begin{array}{c} \text{Variable Street} \\ \text{Services O\&M} \\ \text{Cost per UNIT} \\ \text{(Table)} \end{array} \right]$$

SELECT SYSTEM
STREET SERVICES
O&M COST
COMMERCIAL &
INDUSTRIAL

$$= A \times \left[\begin{array}{c} \text{Total of Base} \\ \text{\& Variable Cost} \\ \text{Per Acre} \\ \text{(Table)} \end{array} \right]$$

TABLE- SELECT SYSTEM STREET SERVICES
OPERATING AND MAINTENANCE COSTS

	Cost per unit or acre for:		
	Bullard Marks plan area	Woodward Park plan area	Average Standard Grid area
<u>Residential</u>			
Base Cost per Acre	\$14.04	\$14.72	\$14.79
Single Family Residential Unit	4.52	4.67	4.18
Multi-Family Residential Unit	2.61	2.71	2.42
<u>Variable Cost by Type of</u>			
<u>Land Use</u>			
Commercial- Neighborhood Acre	252.69	261.70	235.68
Commercial- Community Acre	178.73	185.16	167.22
Commercial-Regional Acre	140.03	145.11	131.40
Office Acre	241.94	250.57	225.73
Industrial Acre	115.09	119.30	108.32

Note: There are two types of operating and maintenance costs shown on this table- base costs and variable costs. The base cost figures represent the maintenance of minimum standard streets and are allocated on an acreage basis without regard to land use. Variable costs are based on estimated trip generation for the various land use categories. The cost per dwelling unit, or per acre for commercial and industrial developments, varies for both base and variable costs, depending on the proposed location. Costs have been calculated for the Bullard Marks specific plan area, the Woodward Park community plan area, and for a standard square mile grid for areas without an updated plan.

Street Services include street maintenance, street sweeping, traffic signal maintenance, street lighting, and street marking and signing.

$$\boxed{\text{RESIDENTIAL STREET SERVICES- O \& M COST}} = \text{Number of Residential Street Miles} \times \left[\begin{array}{l} \text{Street Maintenance + Street Sweeping} \\ \text{Cost Per Mile} \quad \text{Cost Per Mile} \\ (\$1763) \quad (\$773) \end{array} \right]$$

$$+ \text{Street Sweeping Distance Factor} \times \left[\begin{array}{l} \text{\# OF RESIDENTIAL STREET LIGHTS} \times \text{Cost per Street Light O \& M} \\ (\$50 \text{ per mile beyond max. service radius}) \quad (\$50.52) \end{array} \right]$$

$$\boxed{\text{TRAFFIC ENGINEERING PRELIMINARY COST}} = A \times \begin{array}{l} \text{Preliminary Engineering} \\ \text{Cost per Acre for new} \\ \text{development} \\ (\$9.88) \end{array}$$

Indirect Service Costs

Indirect costs are made up of all the City street-related service costs for the City-wide select street system. The rationale used is that residents of a new development use the City's entire street network, and therefore half of these O&M costs are allocated to residential commercial and industrial land uses with the following equations.

$\boxed{\text{PUBLIC WORKS INDIRECT COST FOR RESIDENTIAL DEVELOPMENT}}$	$= \frac{P}{\text{City Population} + P} \times \text{Land Use Factor} \times \text{O\&M Cost of City-wide Street Related Services}$
	$(176,800) \quad (.72) \quad (\$1,546,100)$
$\boxed{\text{PUBLIC WORKS INDIRECT COST FOR COMMERCIAL DEVELOPMENT}}$	$= \frac{A}{\text{City Commercial Acres} + A} \times \text{Land Use Factor} \times \text{O\&M Cost of City-wide Street Related Services}$
	$(5695) \quad (.23) \quad (\$1,546,100)$
$\boxed{\text{PUBLIC WORKS INDIRECT COST FOR INDUSTRIAL DEVELOPMENT}}$	$= \frac{A}{\text{City Industrial Acres} + A} \times \text{Land Use Factor} \times \text{O\&M Cost of City-wide Street Related Services}$
	$(1238) \quad (.05) \quad (\$1,546,100)$

Note: City-Wide Public Works Street Related Services is one half the cost of maintenance of the Select System and includes the cost of street maintenance, street sweeping, street lighting, traffic signals, street signing and marking and storm drains.

Departmental Administrative Cost

The Administrative cost allocation, shown below, is based on the proportion of the new development's direct and indirect O&M costs to the total Public Works Department O&M costs. The cost of administering the enterprise divisions is excluded from this analysis.

PUBLIC WORKS ADMINISTRATIVE COST	=	New Development	+	New Development	X	Cost of Public Works Administration (\$177,770)
		Direct O&M Costs		Indirect O&M Costs		
	Total General Fund Budget Administered					
	by Public Works Department ((\$6,187,900))					

Note: This cost not to exceed 5%.

5. Planning, Inspection and Engineering Services

These services are a combination of the Planning and Inspection Department and the Public Works Engineering and Development Services divisions. New development pays fees for some of these services and it is assumed that they pay for any direct cost generated by the development itself. Therefore only the City-wide indirect and administrative costs for these services are allocated to new development.

Indirect Service Costs

Planning Inspection and Engineering Services are provided to improve the physical environment of the City as a whole. This indirect cost is allocated to new residential development on the basis of population, and to new commercial and industrial development on the basis of acreage. The following equations reflect these considerations.

PLANNING, INSPECTION & ENGINEERING SERVICES INDIRECT COST FOR RESIDENTIAL DEVELOPMENT	=	$\frac{P}{\text{City Population} + P}$ (176,800)	X	Land Use Factor (.72)	X	Net Cost of Planning & Engineering Services (\$1,808,100)
PLANNING, INSPECTION & ENGINEERING SERVICES INDIRECT COST FOR COMMERCIAL DEVELOPMENT	=	$\frac{A}{\text{City Commercial} + A}$ Acres (5695)	X	Land Use Factor (.23)	X	Net Cost of Planning & Engineering Services (\$1,808,100)
PLANNING, INSPECTION & ENGINEERING SERVICES INDIRECT COST FOR INDUSTRIAL DEVELOPMENT	=	$\frac{A}{\text{City Industrial} + A}$ Acres (1238)	X	Land Use Factor (.05)	X	Net Cost of Planning & Engineering Services (\$1,808,100)

Departmental Administrative Cost

Administrative costs for Planning and Inspection services are calculated based on the proportion that the indirect O&M costs calculated above represents of total Planning & Inspection operating and maintenance costs. Similarly, administrative costs for Public Works Engineering is calculated based on the proportion that its share of the indirect costs represents of total Public Works O&M costs. These considerations are reflected in the following equations.

PLANNING & INSPECTION ADMINISTRATIVE COST	=	$\frac{\text{Indirect P\&I Cost Allocated to New Development (75.3\% of Allocation)}}{\text{Net O\&M Cost of Planning \& Inspection (\$2,007,959)}}$	X	Planning & Inspection Department Administration (\$94,500)
PUBLIC WORKS ENGINEERING ADMINISTRATIVE COST	=	$\frac{\text{Indirect P/W Engineering Cost Allocated to New Development (24.7\%)}}{\text{Net O\&M Cost of Public Works (\$6,187,921)}}$	X	Public Works Department Administration (\$177,770)

Note: These costs not to exceed 5%.

6. Non-Departmental Costs

Non-departmental costs include the City Council, the non-departmental funds administered by the Finance Department and the CAO's Office, and special pension benefits from the Fire and Police Department. The following equation allocates these costs to residential development on the basis of population and to commercial and industrial development on an acreage basis.

NON-DEPARTMENTAL INDIRECT COST FOR RESIDENTIAL DEVELOPMENT	=	$\frac{\text{City Population} + \frac{P}{P}}{(\text{176,800})}$	X	Land Use Factor (.72)	X	Cost of City-Wide Non-Departmental Expense (\$2,615,100)
NON-DEPARTMENTAL INDIRECT COST FOR COMMERCIAL DEVELOPMENT	=	$\frac{\text{City Commercial} + \frac{A}{A}}{\text{Acres (5695)}}$	X	Land Use Factor (.23)	X	Cost of City-Wide Non-Departmental Expense (\$2,615,100)
NON-DEPARTMENTAL INDIRECT COST FOR INDUSTRIAL DEVELOPMENT	=	$\frac{\text{City Industrial} + \frac{A}{A}}{\text{Acres (1238)}}$	X	Land Use Factor (.05)	X	Cost of City-Wide Non-Departmental Expense (\$2,615,100)

7. General Administrative Costs

General Administrative cost includes the following departments: City Clerk, City Attorney, Personnel & Labor Relations, Finance, and Administrative Management.

The equation which allocates these costs to new development is constructed with the assumption that there is a direct relationship between the value of the departmental administration calculated above, and proportion of general administration cost required to support those departments. This relationship means that the greater the direct and indirect costs allocated to a new development, the greater the departmental administration allocation, and correspondingly, the greater the general administration allocation.

GENERAL ADMINISTRATION COSTS FOR ALL TYPES OF DEVELOPMENT

$$\begin{array}{rcl} \text{Sum of Departmental Administration} & & \text{General} \\ \text{Costs Allocated to New Development} & \times & \text{Administration} \\ \hline \text{Total Departmental Administration} & & \text{Cost} \\ (\$1,662,200) & & (\$2,971,000) \end{array}$$

REVENUE ANALYSIS

The revenue side of Cost/Revenue Analysis is designed to calculate the amount of additional revenue which will accrue to the City when a new development is completed. Although some revenues like the property tax are easily calculated from the physical data of a development plan, there are many others where the relationship to new development is less direct and clear. The State subventions, like the motor vehicle in-lieu tax, for example, are based upon formulas which use municipal population as a base and must be allocated to new development on the basis of its estimated population.

The first step in revenue analysis is to identify those revenue sources which will be affected by new development. Then a mathematical statement or equation is constructed using historical revenue flow data, which will transfer information from the development proposal into an accurate estimate of new revenue from each of these sources.

Since the revenue side of the analysis must be consistent with the cost side, it is important to emphasize the viewpoints which are reflected in the revenues chosen for inclusion in the analysis and their method of calculation.

1. User revenues directly offset the costs of enterprise services, and are, therefore, excluded from the analysis. Credit is given, however, for in-lieu taxes included in water bills.

2. Fees and charges paid by developers for permits and inspections are assumed to offset the direct costs of providing these services, and are, therefore, excluded from the analysis.

3. Revenue from other charges paid by residents for current services such as parks and recreation charges, police fingerprint, and special witness fees are subtracted from the appropriate cost items and excluded as revenue sources.

4. As mentioned earlier under the assumptions, all residents of a new development are considered to be new residents of the City in the calculation of population-based revenues.

5. Revenue sources which do not fluctuate enough to be affected by urban growth over five years, such as General Revenue Sharing, are excluded from the analysis.

1. Property Taxes

Real and personal property tax is calculated directly from the estimated value for all types of new development.

PROPERTY TAX REVENUE
ALL TYPES OF
DEVELOPMENTS

$$= .25 \text{ Total Market Value} \times \left[\begin{array}{l} \text{Tax Rate} \\ (.0275) \end{array} \right]$$

PROPERTY TAX REVENUE
COMMERCIAL & INDUSTRIAL
DEVELOPMENTS ONLY

$$= .25 \text{ Total Value of Assessed Value of Machinery, Equipment and Inventory exclusive of Land, Buildings & Improvements} \times \begin{array}{l} \text{Tax Rate} \\ (.0275) \end{array}$$

2. Utility & Franchise Taxes

The utility taxes paid by individual residential, commercial, and industrial users and the franchise tax paid by PG&E on the basis of this revenue are shown in the following equations.

UTILITY TAX &
FRANCHISE TAX REVENUE
RESIDENTIAL

= DWELLING UNITS X Utility Tax Table

RESIDENTIAL FRANCHISE AND UTILITY TAX REVENUE

<u>Size of Housing Unit</u>	<u>Franchise Tax</u>	<u>Utility Tax</u>
1200-1400 sq. ft.	2.50	27.20
1600-1800 sq. ft.	3.41	37.56
2400 sq. ft.	4.54	47.09
Multi-Family	2.07	25.84

UTILITY & FRANCHISE TAX
REVENUE
COMMERCIAL

= Gross Square Feet X Commercial Utility Tax Table
Building Area

Commercial Utility Tax Table

<u>Commercial Use</u>	<u>Rate/Sq. Ft.</u>
Neighborhood Shopping	
to 38,000 Sq. Ft.	.068
Over 38,000 Sq. Ft.	\$2584 plus .030
Community Shopping	
to 60,000 Sq. Ft.	.060
Over 60,000 Sq. Ft.	\$3600 Plus .030
General - Service	.070
Merchandise	.030
Offices	.030

UTILITY TAX &
FRANCHISE TAX
REVENUE
INDUSTRIAL

= Variable According to Use
(Warehousing, Manufacturing,
etc.); To be Estimated from
Development Plan.

3. Sales and Use Tax

This tax is allocated to both residential and commercial development. The new residents are given credit for the taxes the City receives for all purchases which they are expected to make within the City. Commercial development is allocated a share for tax receipts from purchase made by non-City residents.

**SALES TAX REVENUE
RESIDENTIAL**

$$= \text{DWELLING UNITS} \times \text{House Value or Monthly Rent} \times \text{Residential Sales Tax Table}$$

RESIDENTIAL SALES TAX TABLE (Based on 1974 IRS Optional Sales Tax Table)			
Single Family		Multi-Family	
House Value	Sales Tax	Monthly Rent	Sales Tax
\$19,600-21,500	\$31.87	\$115-124	\$28.12
21,600-23,400	34.17	125-139	30.42
23,500-25,400	36.46	140-159	32.50
25,500-27,300	38.75	160-174	34.58
27,400-29,300	41.04	175-189	36.67
29,400-31,300	43.12	190-214	38.75
31,400-32,200	45.21	215-239	40.83
33,300-35,200	47.29	240-264	42.71
35,300-37,200	49.37	265-289	44.58
37,300-39,200	51.25	290-314	46.46
39,300-41,000	53.12	315-339	48.33
Over \$41,000	Add .50 for each \$1000 House Value	\$340 & Over	Add .50 for each \$25 Monthly Rent

**SALES TAX REVENUE
COMMERCIAL**

$$= \text{Gross Taxable Retail Sales} \times \text{Proportion to Non City Residents (.35)} \times \text{Sales Tax Revenue Rate (.0125)}$$

**SALES TAX REVENUE
INDUSTRIAL**

$$= \text{Gross Taxable Retail Sales} \times \text{Sales Tax Revenue Rate (.0125)}$$

Note: Industrial Sales assumed to be wholesale unless otherwise specified whereupon the above equation will apply

4. Business License Tax

Business license taxes are allocated directly for commercial and industrial development in the new area.

BUSINESS LICENSE REVENUE COMMERCIAL RETAIL	=	Gross Sales X Retail Business License Table
BUSINESS LICENSE REVENUE OFFICE	=	NUMBER OF OFFICE X \$50. UNITS
BUSINESS LICENSE REVENUE INDUSTRIAL	=	Gross Sales X Wholesale Business License Table

5. Cigarette Sales Tax

Cigarette tax is collected by the State of California and returned in part to the City as follows: \$1.90 per capita, plus an allocation based on sales tax allocation. This revenue is allocated to residential and commercial developments with the following equations.

CIGARETTE SALES TAX REVENUE RESIDENTIAL	=	P	X	$\left[\begin{array}{l} \text{Base Per} \\ \text{Capita} \\ \text{Rate} \\ (\$1.90) \end{array} + .65 \times \left[\begin{array}{l} \text{Prior Year} \\ \text{Revenue} \\ (\$783,380) \end{array} - \begin{array}{l} \$1.90 \times \text{Prior Year} \\ \text{Population} \\ (174,100) \end{array} \right] \right]$
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*Note: .65 represents City Residents Proportion

CIGARETTE SALES TAX REVENUE COMMERCIAL	=	Sales Tax Revenue Credited above	X	$\frac{\text{Non per Capita Cigarette Tax Revenue Prior Year } (\$452,590)}{\text{Prior Year Sales Tax Revenue } (\$7,536,869)}$
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6. Alcoholic Beverage Revenues

The State of California permits new alcoholic beverage licenses in a city as population increases by 2,000 residents. Ninety percent of this \$12,000 fee is returned to the City. Additionally, the State collects annual fees for the sale of beer, wine and other alcoholic beverages, 90 percent of which is returned to the City.

Therefore, these revenues are allocated to residential development with the following equations.

STATE ALCOHOLIC BEVERAGE RECURRING REVENUE - WINE & BEER RESIDENTIAL ONLY	-	P	x	$\frac{5 \text{ Year Average Revenue } (\$67,289)}{5 \text{ Year Average Population } (169,364)}$	x	$\frac{\text{City Residents Proportion } (.65)}{}$
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STATE ALCOHOLIC BEVERAGE NEW GENERAL LICENSE REVENUE (2nd Year Only) RESIDENTIAL ONLY	-	P	x	$\frac{90\% \text{ of 1st Year License for one each } (\$12,000)}{\text{Population Increase for New License Approval } (2,000)}$
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STATE ALCOHOLIC BEVERAGE RECURRING REVENUE - GENERAL LICENSE (Years 2-5) RESIDENTIAL ONLY	-	P	x	$\frac{\text{Annual Revenue from New Licenses } (.9 \times \$824)}{\text{Population Increase for New Licenses } (2,000)}$
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7. Admissions Tax

The City collects a 5 percent admissions tax at all entertainment events. This revenue is allocated to new residential development only.

ADMISSION TAX REVENUE RESIDENTIAL ONLY	-	P	x	$\frac{5 \text{ Year Average Revenue } (\$40,734)}{5 \text{ year Average Population } (169,364)} \times \frac{\text{City Residents Proportion } (.65)}{}$
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8. State Motor Vehicle Revenue

This revenue is an in-lieu tax collected by the State on the value of vehicles and returned to the City on the basis of population. It is therefore allocated to residential development with the following equations.

STATE MOTOR VEHICLE IN-LIEU REVENUE RESIDENTIAL ONLY	-	P	x	$\frac{5 \text{ year average Revenues } (\$1,569,108)}{5 \text{ year average Population } (169,364)}$
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9. Real Estate Transfer Tax

This tax is currently collected by Fresno County upon the sale of any type of real estate. The revenue is allocated to residential commercial and industrial development with the following equations.

REAL ESTATE TRANSFER TAX REVENUE (1st year only) ALL TYPES OF DEVELOPMENTS	=	Total Market Value	x	$\text{Tax Rate } (.00055)$
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10. State Gas Tax Revenue

This tax is collected by the State on the basis of gallons of gas sold. The state returns a portion of this to the City which can only be estimated based on the prior year revenue. This is due to unpredictable fluctuations in this revenue which the City has experienced. This revenue is allocated to residential development with the following equations.

$$\boxed{\begin{array}{l} \text{STATE GAS TAX} \\ \text{REVENUE} \\ \text{RESIDENTIAL ONLY} \end{array}} = P \times \text{Prior Year Per Capita Revenue} \\ (\$7.845)$$

11. Water & Sewer In-lieu Tax

This revenue is an in-lieu tax collected by the City as part of the fee charged to water customers. It is calculated on the basis of the City-wide average in-lieu tax for water service capital improvements and allocated with the following equation.

$$\boxed{\begin{array}{l} \text{WATER \& SEWER SERVICE} \\ \text{IN-LIEU TAX REVENUE} \end{array}} = \text{No. of Services} \times \text{Average in lieu per service} \\ (\$8.40)$$

12. Other Revenue

The following equations specify other revenues which are collected by the City and allocated to residential development on the basis of population.

$$\boxed{\begin{array}{l} \text{VEHICLE CODE} \\ \text{FINES REVENUE} \\ \text{RESIDENTIAL ONLY} \end{array}} = P \times \frac{\text{5 Year Average Revenue} \times \text{City Residents}}{\text{5 year Average Population}} \\ \frac{(\$334,300) \times \text{Proportion } (.65)}{(169,364)}$$

$$\boxed{\begin{array}{l} \text{ANIMAL LICENSE REVENUE} \\ \text{RESIDENTIAL ONLY} \end{array}} = P \times \frac{\text{5 Year Average Revenue}}{\text{5 Year Average Population}} \\ \frac{(\$86,600)}{(169,364)}$$

$$\boxed{\begin{array}{l} \text{MUNICIPAL ORDINANCE} \\ \text{VIOLATIONS REVENUE} \\ \text{RESIDENTIAL ONLY} \end{array}} = P \times \frac{\text{5 Year Average Revenue}}{\text{5 Year Average Population}} \\ \frac{(\$119,150)}{(169,364)}$$

$$\boxed{\begin{array}{l} \text{BICYCLE LICENSE REVENUE} \\ \text{RESIDENTIAL ONLY} \end{array}} = P \times \frac{\text{Prior Year Revenue - State Registration Fee}}{\text{Prior Year Population}} \\ \frac{(.75 \times \$7,805)}{(174,100)}$$

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